

**[0009]** There is also a need to provide a recordable accessory with a display for sharing user-customized information among a variety of intelligent host devices. In addition to mechanical coupling, the interface between the recordable display accessory must provide for exchanging data with the coupled host device. Furthermore, handheld computer users need such a device that is of appropriate size to be ergonomically compatible with handheld computers.

**[0010]** Often, however, it is desirable to use a single display module with a variety of host devices. Further, it is often desirable to provide such display devices having a relatively small size.

**[0011]** It is known that modules can extend the functionality of a handheld computer. However, the user has certain customized preferences and key data that must be programmed into every electronic device. Preferably, the user should need to configure custom preferences and input key data only once and have that information shared with a variety of host devices.

**[0012]** Accordingly, there is a need for a display device module that includes a removably connectable interface for mechanically coupling to a host device. With regard to intelligent host devices, there is a further need to include a communication interface for interoperability and data sharing between the display module and the host device. Finally, there is a need for a system standard for removably coupling the display device module to a variety of host devices.

**[0013]** Further still, there is a need for a foldable accessory device that interfaces with a card slot in a portable electronic device when unfolded and may also attach to and be used with other electronic devices

when folded. There is also a need for a foldable accessory device that can be folded to provide protection to the device and portability.

**[0014]** The techniques and structure described herein extend to those embodiments which fall within the scope of the appended claims, regardless of whether they accomplish one or more of the above-mentioned needs.

## SUMMARY

**[0015]** An exemplary embodiment relates to a display module for a handheld computer. The display module includes a display housing and a display incorporated into the display housing. The display module also includes an interface housing. Further, the display module includes an interface configured to be removably coupled to the handheld computer. The interface is incorporated into the interface housing. Further still, the display module includes a memory.

**[0016]** Another exemplary embodiment relates to an accessory module for a portable electronic device. The accessory module includes an accessory housing. The accessory module also includes an interface for making electrical connection between the accessory module and a host device, and an interface housing for supporting the interface. The interface housing is hinged to the accessory housing such that the interface housing can fold behind the accessory housing, and the interface housing can unfold to extend for insertion into an interface slot in a handheld computer.

**[0017]** Yet another exemplary embodiment relates to a portable display module for coupling to a host device. The portable display module includes a display housing and a display coupled to the display

housing. The portable display module also includes an interface housing and an interface configured to be removably coupled to the host device. The interface is incorporated into the interface housing. Further, the portable display module includes a memory.

## BRIEF DESCRIPTION OF THE DRAWINGS

[0018] The invention will become more fully understood from the following detailed description, taken in conjunction with the accompanying drawings, wherein like reference numerals refer to like elements, in which:

[0019] FIG. 1 is a front perspective view of a display module partially coupled to a handheld computer;

[0020] FIG. 2 is a front view of the display module of FIG. 1 with the interface fully extended;

[0021] FIG. 3A is a side perspective view of the display module of FIG. 1 with the interface fully extended;

[0022] FIG. 3B is a side perspective view of the display module of FIG. 1 with the interface partially folded;

[0023] FIG. 3C is a rear perspective view of the display module of FIG. 1 with the interface fully folded;

[0024] FIG. 4A is a top perspective view of the display module of FIG. 1 with the interface fully folded and coupled to a wrist band;

[0025] FIG. 4B is an exploded side perspective view of the display module of FIG. 1 with the interface fully folded and decoupled from the wrist band of FIG. 4A; and